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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/593,264	09/18/2006	Hajime Kusano	KUSANO 1	6438

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EXAMINER	
RICCI, CRAIG D	

ART UNIT	PAPER NUMBER
1614	

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09/30/2009	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/593,264	KUSANO ET AL.	
	Examiner	Art Unit	
	CRAIG RICCI	1614	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *11 June 2009*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☐ Claim(s) *1-20* is/are pending in the application.

4a) Of the above claim(s) *4, 7-8, 14-15* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-3,5,6,9-13 and 16-20* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Status of the Claims

1. The amendments filed 6/11/2009 were entered.

Response to Arguments

2. Applicants' arguments, filed 6/11/2009, have been fully considered. Rejections and/or objections not reiterated from previous office actions are hereby withdrawn. In particular, the rejection of claims under 35 USC § 103 have been withdrawn in view of Applicants' amendments to the claims. The following rejections and/or objections are either reiterated or newly applied. They constitute the complete set presently being applied to the instant application.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

5. **Claims 1-3, 5-6, 9-13 and 16-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over *Kurisaki et al* (US 5,024,831) in view of *Backhaus* (DE 4339486) - based on a Machine Translation and awaiting a certified translation - and *Tanabe et al* (WO 2004/071472) - for which US 2007/0003502 is being used as the English language equivalent (cited in a previous Action)**.

6. As amended, instant claims 1-3, 5-6, 9 is drawn to a functional powdery product, which is prepared by allowing a carrier (specifically, cellulose in the form of a sphere as recited by instant claims 5-6 and 9) having a surface to homogenously support a vitamin glycoside (specifically, a quercetin glycoside as recited by instant claims 2-3) wherein the amount of vitamin glycoside supported on the carrier surface is 0.01 to 30% (w/w) based on the amount of the functional powdery product, and wherein the average particle size of said functional powdery product is 0.01 to 30 μm. Instant claims 10-13 and 16-20 are drawn to an external dermatological agent in the form of a powder (more specifically, a solid powder cosmetic such as a foundation (claims 18-20)) comprising the functional powdery product of claim 1 (claim 10), further comprising pharmaceutically acceptable substances, for example powders such as talk (claims 11-13) and/or saccharide derivatives of α,α-trehalose (claims 16-17).

7. The following rejection is necessitated by Applicants' amendments to the claims.

8. *Kurisaki et al* teach "a spherical cellulose powder **coated**, impregnated, or chemically linked with a high molecular substance retentive of moisture in the system" (Column 1, Lines 10-12, emphasis added), "having an average particle diameter of 3 to 50 μm" (Column 1, Lines 64-65) wherein the high molecular weight substance is, for example, hyaluronic acid (Column 2, Line 1 and Column 4, Example 1). Additionally, as embodied in Example 1, the amount of

hyaluronic acid supported on the carrier surface is 1.0 % (by weight) and the formulation further comprises talc (Column 4, Lines 20-26). Furthermore, Example 1 is a cosmetic foundation (Column 4, Line 45) which encompasses an external dermatological agent in the form of a solid powder cosmetic as recited by claims 10 and 18-20. As such, *Kurisaki et al* teach a functional powdery product (i.e., a solid powder cosmetic foundation) having a carrier (specifically, cellulose in the form of a sphere) having a surface which is coated with (i.e., homogenously supports) hyaluronic acid in an amount as recited by the instant claims, and wherein the average particle size of the powdery product overlaps the recited range.

9. However, *Kurisaki et al* do **not** teach functional powdery products comprising **(A)** a vitamin glycoside (specifically, a quercetin glycoside) or **(B)** saccharide derivatives of α,α-trehalose. It would have been *prima facie* obvious to a person of ordinary skill in the art the time the invention was made to include **(A)** a vitamin glycoside (specifically, a quercetin glycoside) and **(B)** saccharide derivatives of α,α-trehalose for the following reasons:

10. **As to (A)**: quercetin glycosides, such as rutin, are known to inhibit hyaluronidase and thus prolong moisture retention in the skin, as taught by *Backhaus* (Abstract and Machine Translation). Accordingly, it would have been *prima facie* obvious to replace hyaluronic acid in the cosmetic formulation taught by *Kurisaki et al* with a vitamin glycoside such as rutin, in view of *Backhaus*, to inhibit hyaluronidase (which hydrolyses hyaluronic acid) such that the action of the hyaluronic acid occurring naturally in the skin is maintained (i.e., providing the same effect as applying hyaluronic acid), with a reasonable expectation of success. The simple substitution of one known substance retentive of moisture in the system (e.g., hyaluronic acid) with another

substance retentive of moisture in the system (e.g., rutin) according to known methods to obtain predictable results is *prima facie* obvious.

11. **As to (B)**: as discussed in the previous Action, *Tanabe et al* teach a "skin preparation for external use characterized by containing sugar derivative of α,α-trehalose" (Title). More specifically, *Tanabe et al* teach that the external dermatological formulations include "powders" (Paragraph 0006) and the saccharide derivatives of α,α-trehalose include "α-maltotriosyl α,α-trehalose" (Paragraph 0008). Furthermore, *Tanabe et al* explicitly teach a powder foundation comprising saccharide derivatives of α,α-trehalose (specifically 2.1% "α-maltotriosyl α,α-trehalose (*see* Paragraph 0070, Example 3 which was further processed to the amorphous powder in Example 7, Paragraph 0100, which was used in the powder foundation)) which "is capable of freshly making up and satisfactorily keeping the makeup by moisturizing effect of saccharide derivatives of α,α-trehalose and has a satisfactory skin feeling without sticky feeling" (Paragraph 0115, Example 20). Additionally, *Tanabe et al* teach a cleansing powder comprising saccharide derivatives of α,α-trehalose (specifically 1.6% "α-maltotriosyl α,α-trehalose (*see* Paragraph 0073, Example 6 which was used in the cleansing powder)) which had effects on "treating and preventing aging of skins… advantageously used for preventing stimulation or itch of skins, and treating or preventing aging of skins. Since the product has a satisfactory moisturizing effect given by the saccharide derivatives of α,α-trehalose in spite of without glycerin, it is a cleansing powder having a satisfactory skin feeling without tightening feeling after applied" (Paragraph 0146, Example 37). Accordingly, it would have been *prima facie* obvious to include saccharide derivatives of α,α-trehalose (specifically, for example, α-maltotriosyl α,α-trehalose) in the *prima facie* obvious powder cosmetic taught by the prior art. The skilled artisan would have

been motivated to include saccharide derivatives of α,α-trehalose in view of *Tanabe et al* who teach numerous advantages of including saccharide derivatives of α,α-trehalose in cosmetic powders such as providing an enhanced skin feeling effect, moisturizing effect, and for treating aging of skins. A person of ordinary skill in the art would have thus included the saccharide derivatives of α,α-trehalose in the prima facie obvious cosmetic powder in order to achieve these desired effects and with a high degree of predictability. Furthermore, as stated in MPEP 2144.06, "It is *prima facie* obvious to combine two compositions each of which is taught by the prior art to be useful for the same purpose, in order to form a third composition to be used for the very same purpose… [T]he idea of combining them flows logically from their having been individually taught in the prior art." *In re Kerkhoven*, 626, F.2d 846, 850, 205 USPQ 1069, 1072 (CCPA 1980). In the instant case, *Kurisaki et al* teach compositions which are useful for the skin and the skilled artisan would reasonably predict that the *prima facie* obvious cosmetic composition would similarly be useful for the skin. Thus, it would have been *prima facie* obvious to combine saccharide derivatives of α,α-trehalose (which are useful for treating the skin) in the *prima facie* obvious cosmetic powder for treating the skin in view of *In re Kerkhoven*.

12. Accordingly, for all of the foregoing reasons, it would have been prima facie obvious to a person of ordinary skill in the art the time the invention was made to include **(A)** a vitamin glycoside (specifically, a quercetin glycoside) and **(B)** saccharide derivatives of α,α-trehalose in the invention taught by *Kurisaki et al*. As such, instant claims 1-3, 5-6, 9-13 and 16-20 are rejected as *prima facie* obvious.

Conclusion

The new ground(s) of rejection presented in this Office action are necessitated by Applicants' amendments to the claims. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to CRAIG RICCI whose telephone number is (571) 270-5864. The examiner can normally be reached on Monday through Thursday, and every other Friday, 7:30 am - 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ardin Marschel can be reached on (571) 272-0718. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/CRAIG RICCI/
Examiner, Art Unit 1614

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